

—CALL FOR PAPERS—

HYLE

International Journal for Philosophy of Chemistry
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TECHNE

Journal of the Society for Philosophy and Technology
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invite papers for a joint special issue on

Nanotech Challenges

Some fifteen years ago, when the term ‘nanotechnology’ was almost unknown, ideas about molecular manufacturing or ‘producing new materials at the nanometer scale’ would clearly have been associated with synthetic chemistry or materials science. Today, almost all of the natural and engineering sciences are engaged in nanotechnology, in some disciplines even as much as 10 per cent. The rapid emergence and growth of nanotechnology across the disciplines, fuelled by visions of a new technological revolution and huge governmental funding, present many great challenges not only to scientists and engineers, but also to those whose profession is to reflect on science and technology and their place in society.

With their particular audiences of philosophers of technology and philosophers of chemistry, respectively, TECHNE and HYLE join forces to address these challenges. Since we, the editors of the journals, believe that the two audiences share too much interest in this topic to go separate ways, we have decided to undertake the experiment of cooperative journal editing. We particularly welcome papers on one or more topics of the following non-exclusive list.

Disciplinary Challenges

- Is nanotechnology a distinct field that can be clearly defined and distinguished from established scientific and engineering disciplines?
- Does nanotechnology necessarily require or actually establish new relationships between the classical discipline? Is it a multi-, inter-, or transdisciplinary field or an emerging new hybrid-discipline?
- Does nanotechnology undermine or require revision of the classical distinction between science and technology?

Epistemological Challenges

- What is the epistemological status of current visions about future achievements of nanotechnology?
- Does the emphasis on the visualization and control of the nano-sphere suggest an epistemological change with reference to the epistemology of chemistry, physics, or other natural sciences?
- Do we need to reconsider the epistemological role of instruments in nanotechnological research?

Ontological & Metaphysical Challenges

- Does nanotechnology undermine the nature-artifact distinction in a way unknown in former technologies and sciences?
- Do nanotechnological ideas about human enhancement and human-machine-interfaces undermine the human-nonhuman distinction and the notion of a person?
- Is nanotechnology driven by metaphysical ideas about nature or religious ideas about man?

Ethical and Sociological Challenges

- Do nanotechnological products and processes require new ethical and legal standards of assessment?
- Are the specific goals of nanotechnology consistent with each other and with socially accepted values?
- What kinds of normative ideas and emotions are mediated by the public images nanotechnology?
- Does the current nano-hype result in the well-known series of public frustration and hostility? Is it possible to identify the actors who benefit from and who lose in this version of an apparently recurrent game?

Manuscripts should follow the general Guidelines for Contributions, available on the HYLE website. Inquiries regarding suitability of submissions may be sent to one or both of the Editors. Authors may indicate in which journal they would prefer to have their paper published, although the final decision will be made by the Editors. Send electronic submissions to Joachim Schummer not later than June 30, 2004 in appropriate form for anonymous reviews.

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For more information, visit http://www.hyle.org/journal/issues/9-2/cfp_nano.htm